FIG. 1

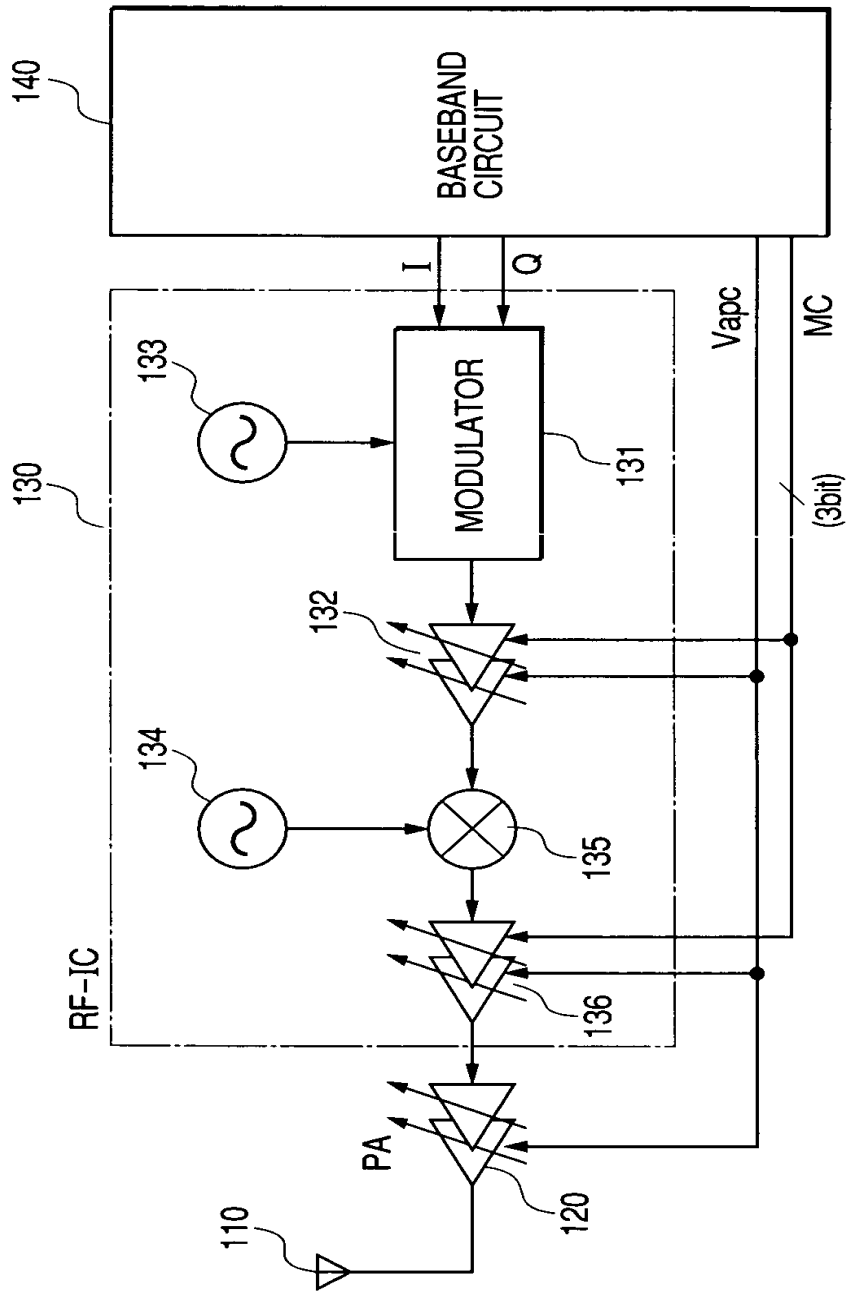

140
BASEBAND CIRCUIT
I
Q
Vapc
MC
(3bit)
130
RF-IC
133
MODULATOR
131
132
134
135
136
PA
120
110

FIG. 2

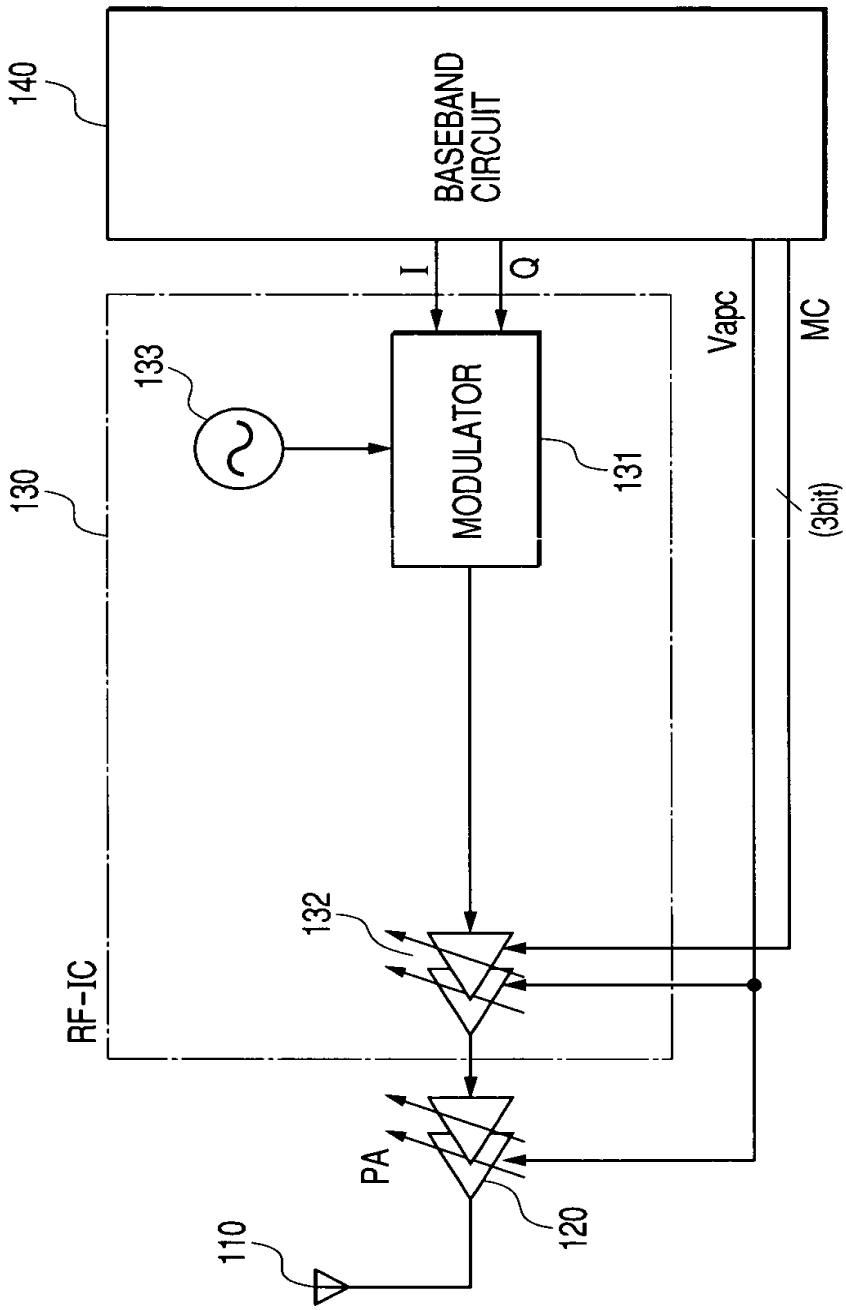
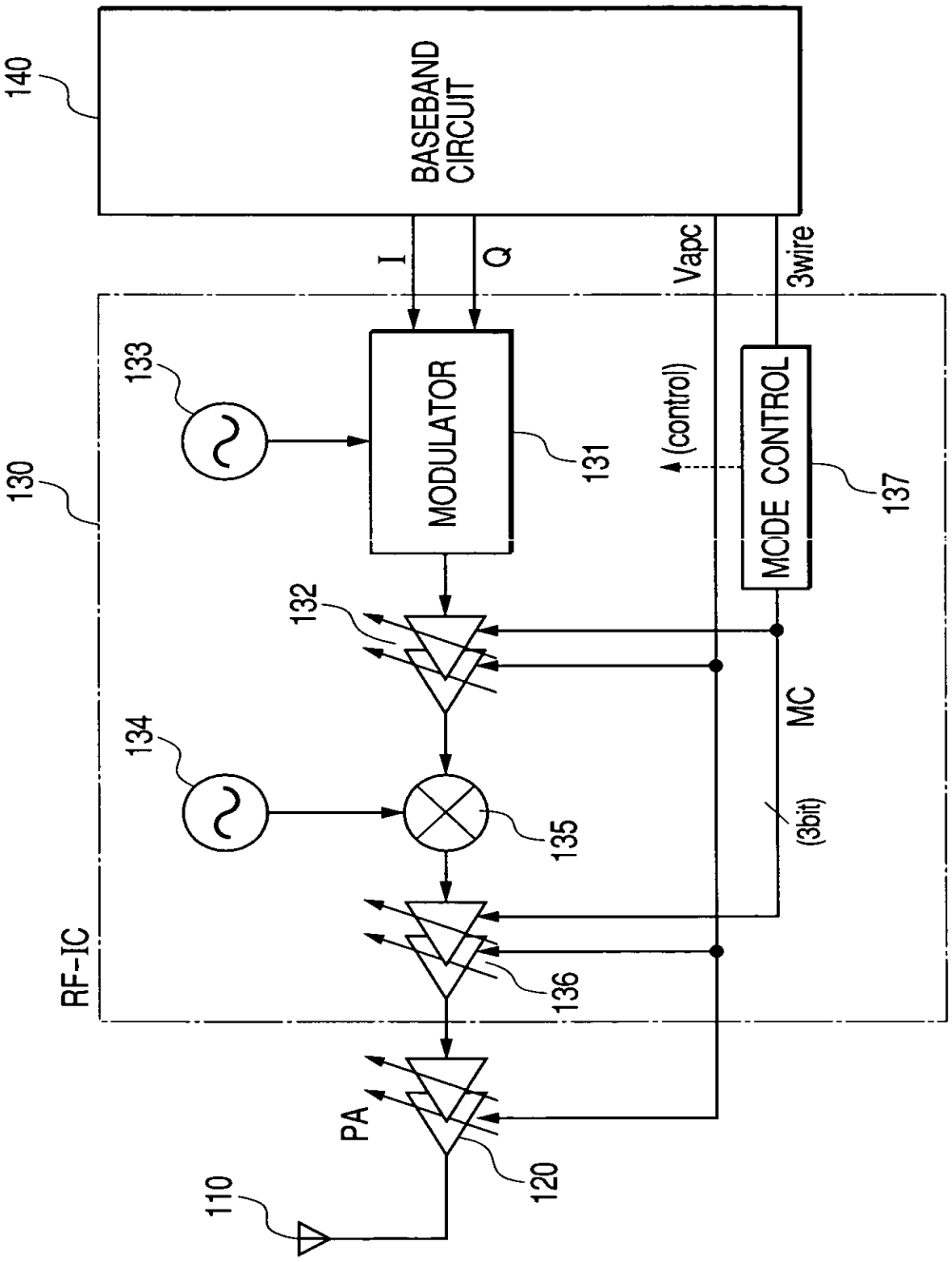

140
BASEBAND CIRCUIT
I
Q
Vapc
MC
133
MODULATOR
131
130
(3bit)
RF-IC
132
PA
120
110

FIG. 3


140
BASEBAND CIRCUIT
I
Q
Vapc
3wire
130
133
MODULATOR
131
(control)
MODE CONTROL
137
132
134
135
MC
(3bit)
RF-IC
136
PA
120
110

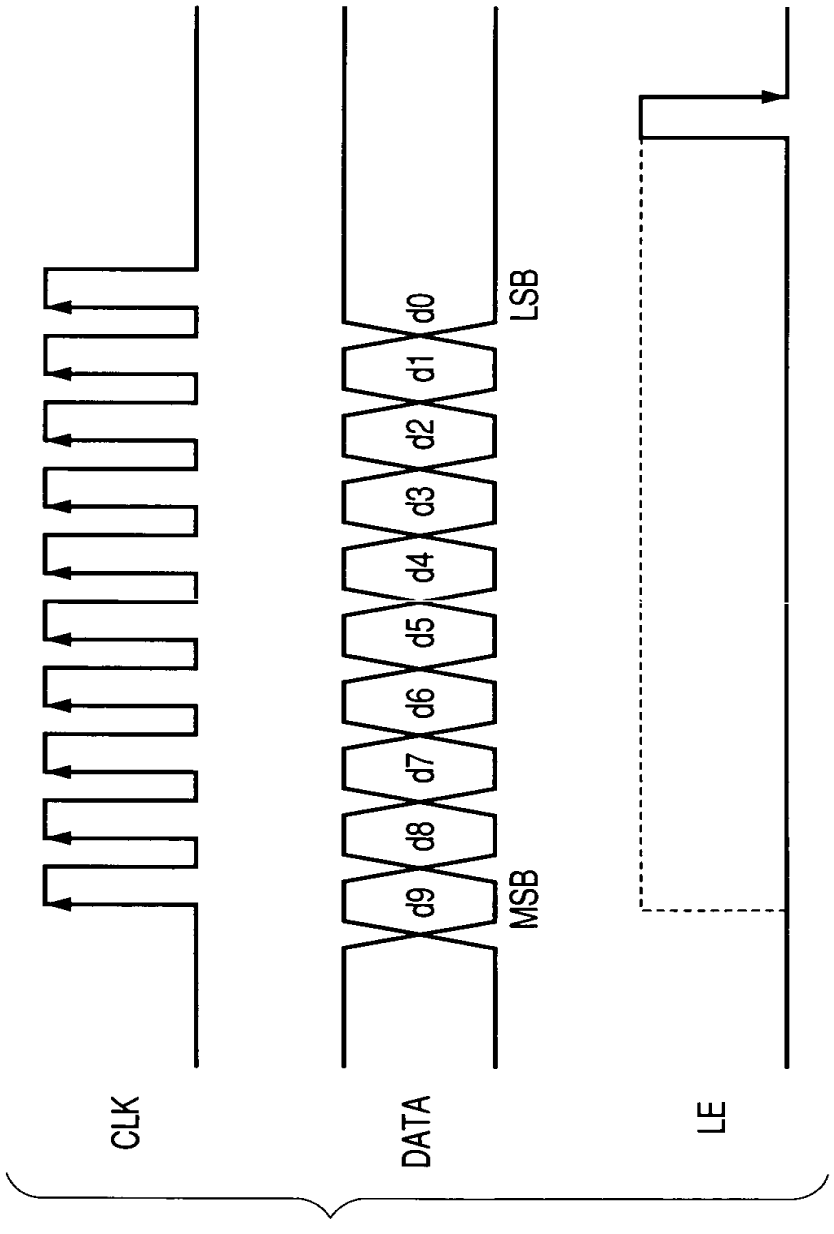


FIG. 4

FIG. 5

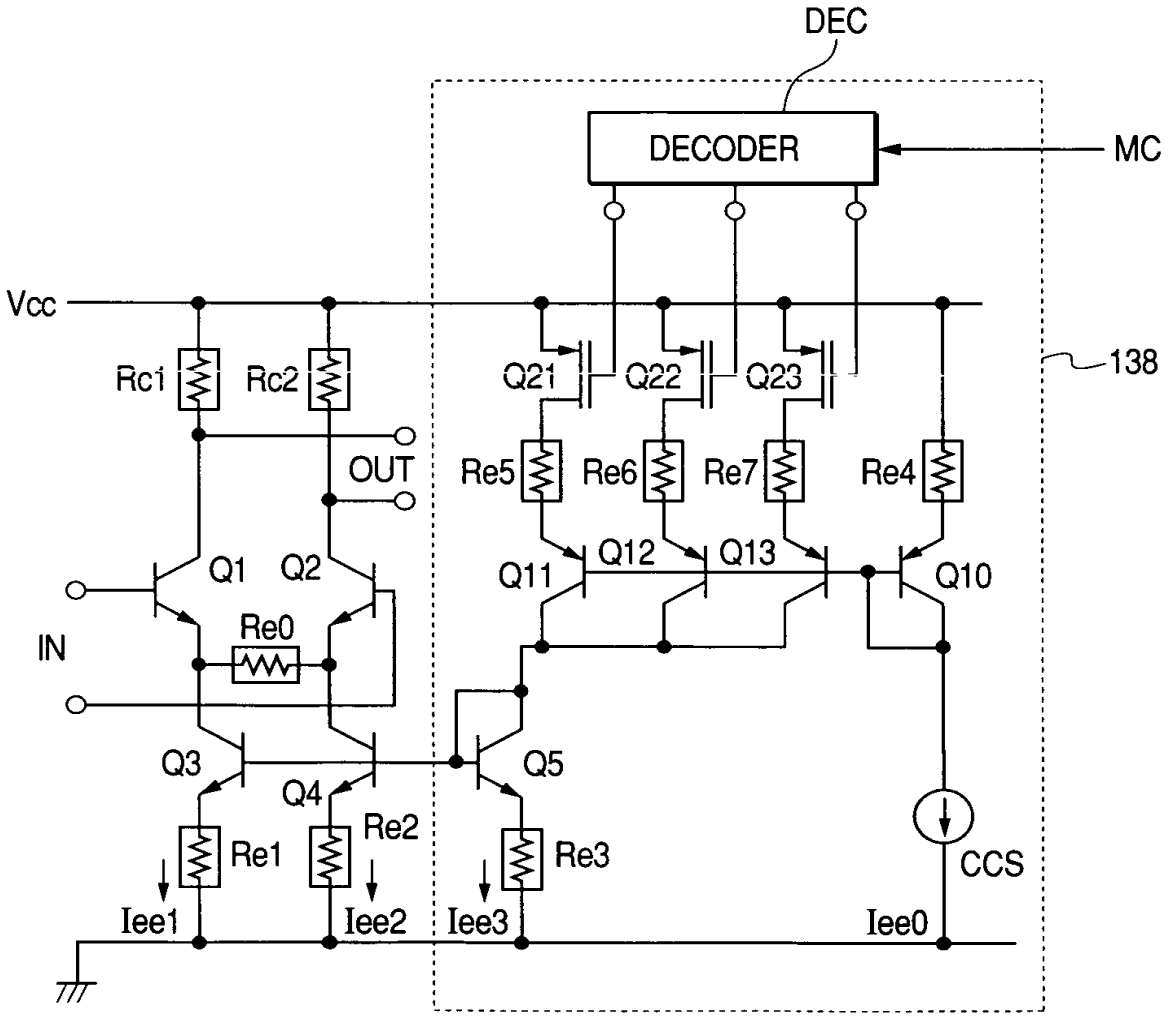

DEC
DECODER
MC
Vcc
138
Rc1
Rc2
Q21
Q22
Q23
OUT
Re5
Re6
Re7
Re4
Q1
Q2
Q12
Q13
Q11
Q10
IN
Re0
Q3
Q5
Q4
Re2
Re1
Re3
CCS
Iee1
Iee2
Iee3
Iee0

FIG. 6

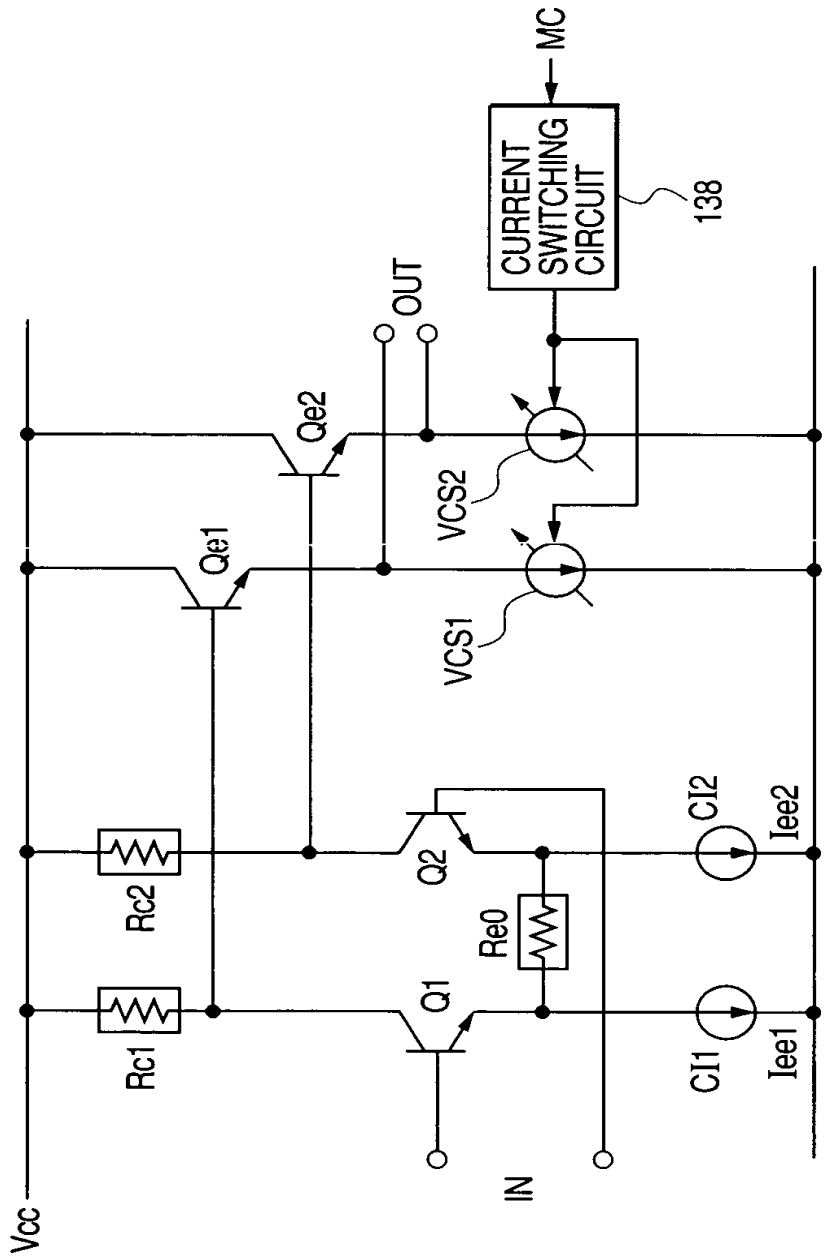

MC
CURRENT SWITCHING CIRCUIT
138
OUT
Qe2
Qe1
VCS2
VCS1
Rc2
Rc1
Q2
Q1
Re0
CI2
CI1
Iee2
Iee1
Vcc
IN

FIG. 7

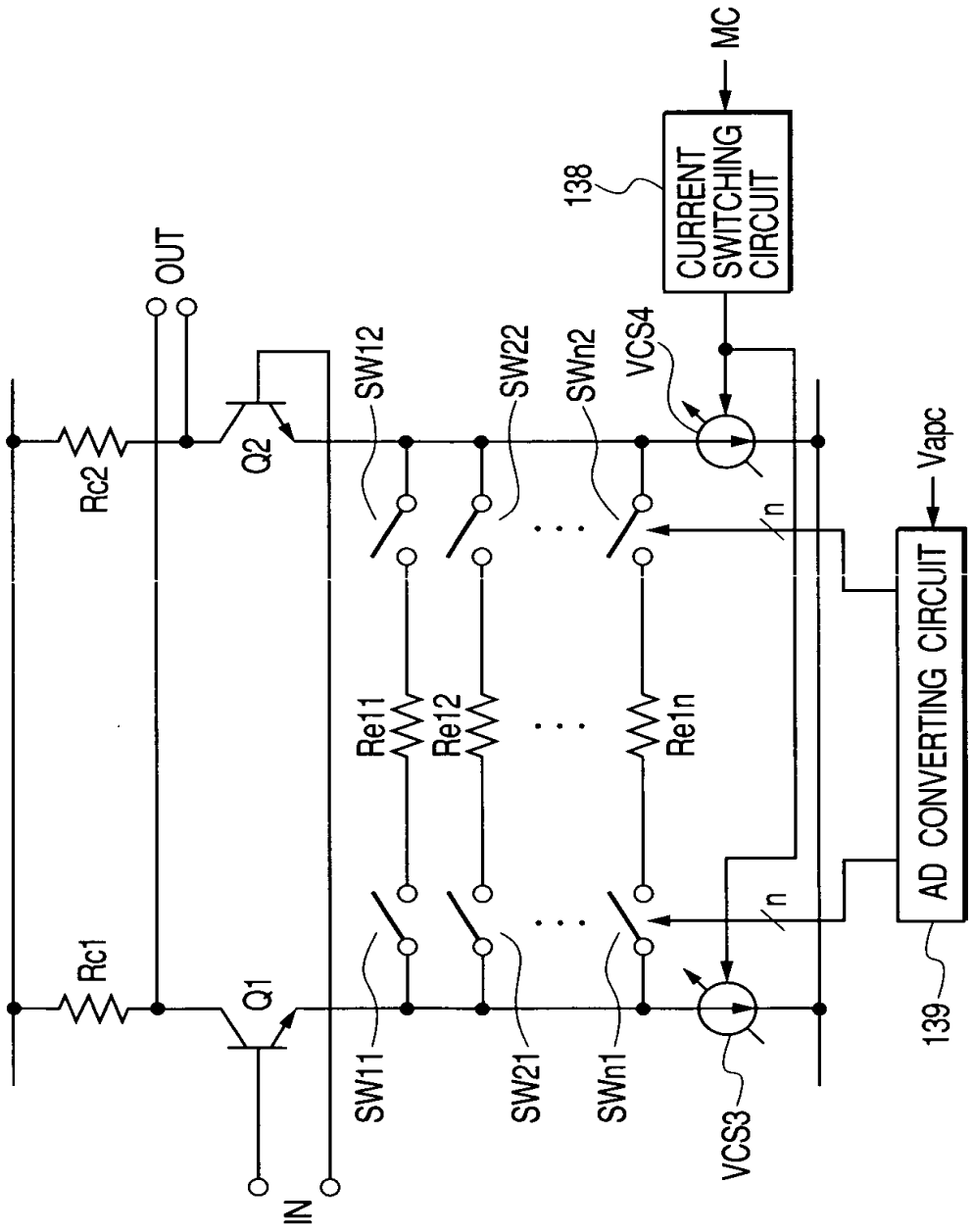

MC
138
CURRENT SWITCHING CIRCUIT
OUT
Rc2
Q2
SW12
SW22
SWn2
VCS4
Vapc
AD CONVERTING CIRCUIT
139
Re11
Re12
Re1n
n
n
Rc1
Q1
SW11
SW21
SWn1
VCS3
IN

FIG. 8

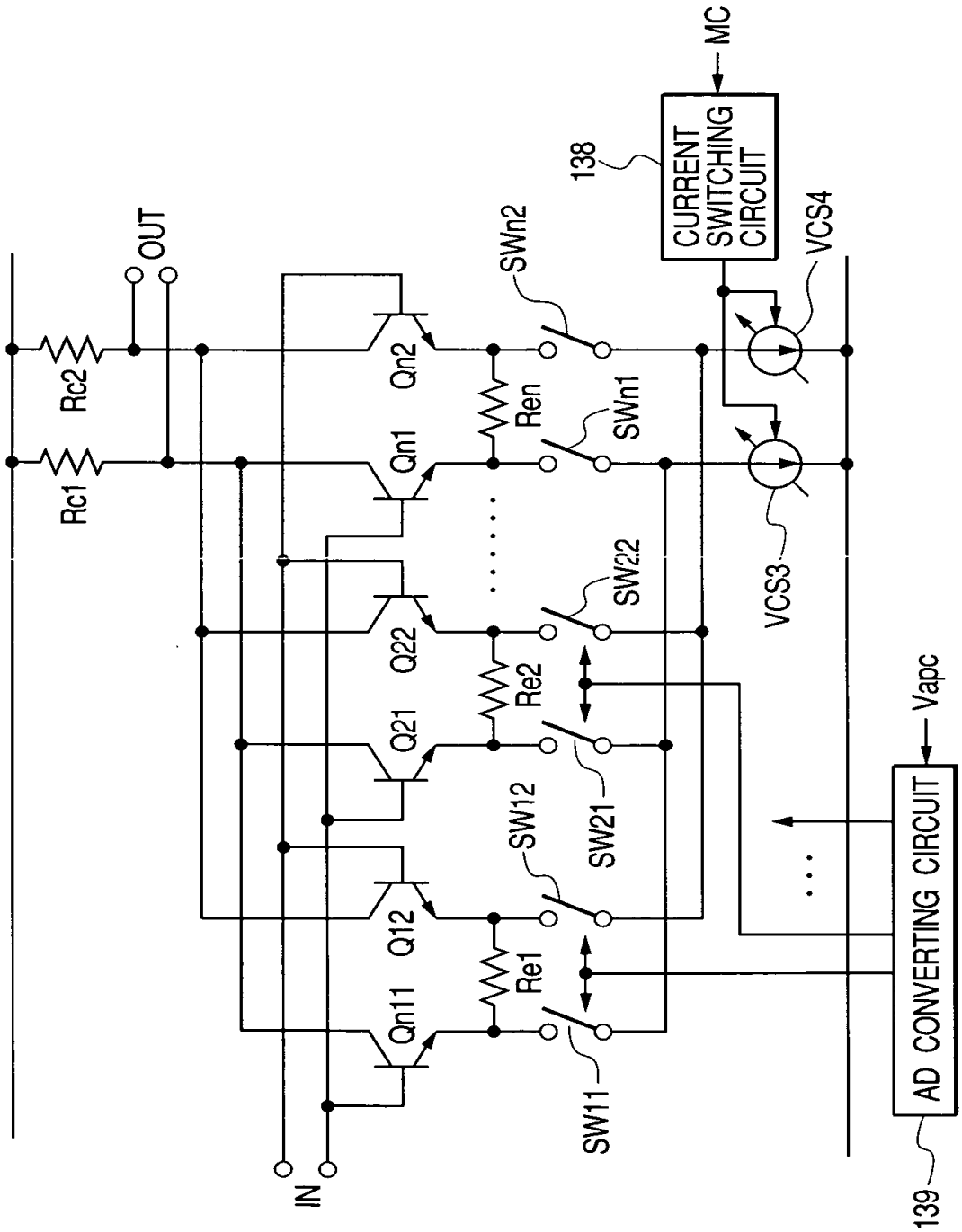

OUT
Rc2
Rc1
Qn2
Qn1
Q22
Q21
Q12
Qn11
Ren
Re2
Re1
SWn2
SWn1
SW22
SW12
SW21
SW11
IN
MC
138
CURRENT SWITCHING CIRCUIT
VCS4
VCS3
Vapc
AD CONVERTING CIRCUIT
139

FIG. 9

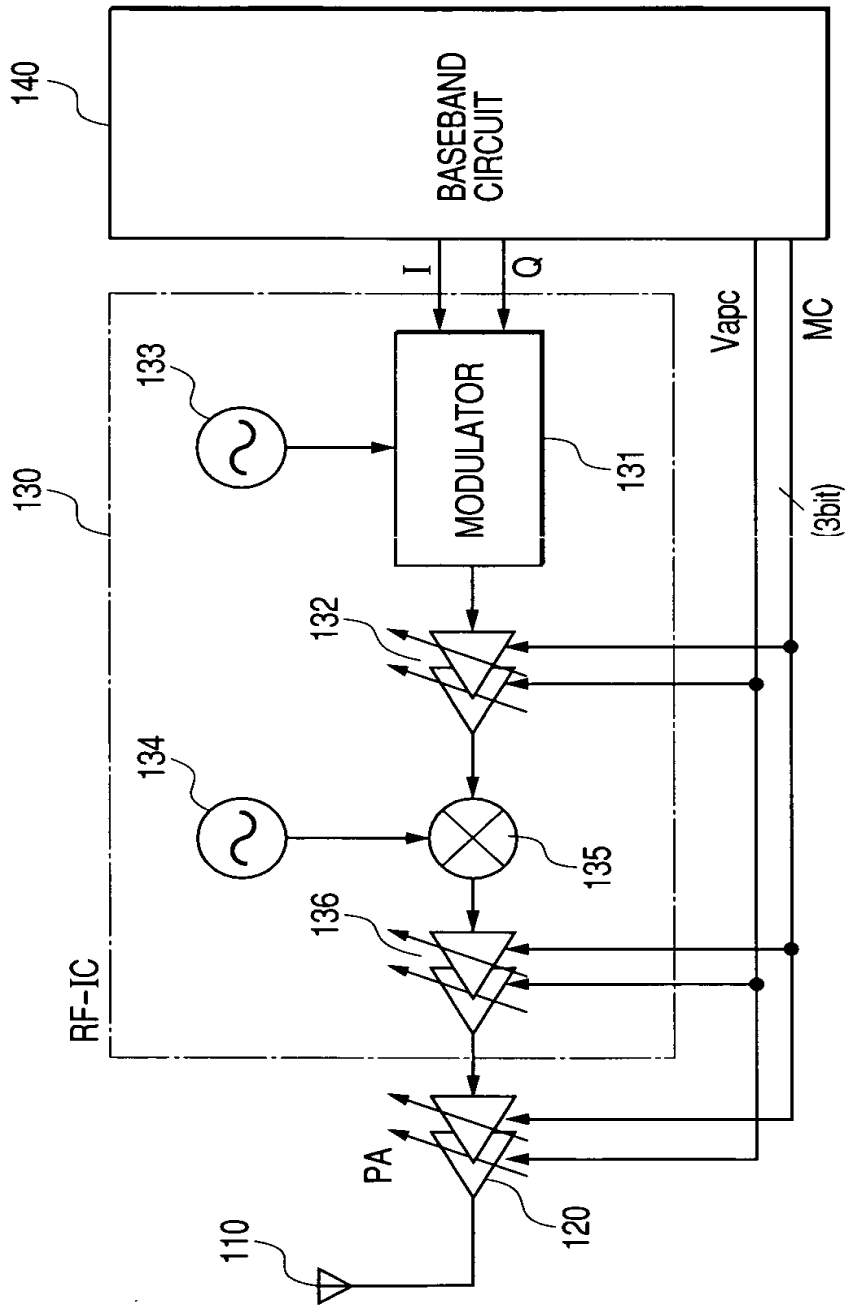

140
BASEBAND CIRCUIT
I
Q
Vapc
MC
(3bit)
130
RF-IC
133
MODULATOR
131
132
134
135
136
PA
120
110

FIG. 10

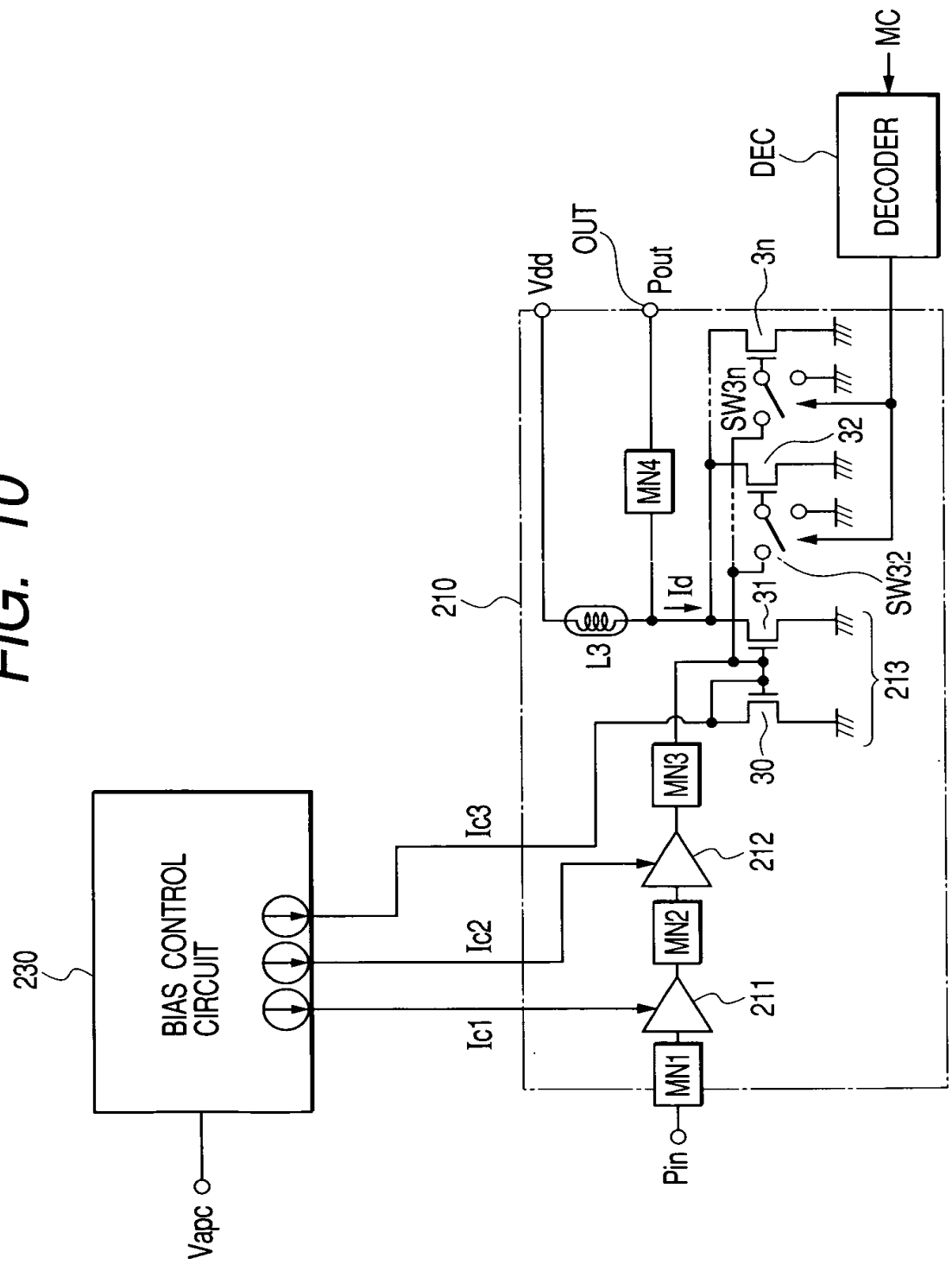

MC
DECODER
DEC
OUT
Vdd
Pout
3n
SW3n
32
SW32
31
30
213
210
L3
Id
MN4
MN3
MN2
MN1
212
211
Ic3
Ic2
Ic1
BIAS CONTROL CIRCUIT
230
Vapc
Pin

FIG. 11

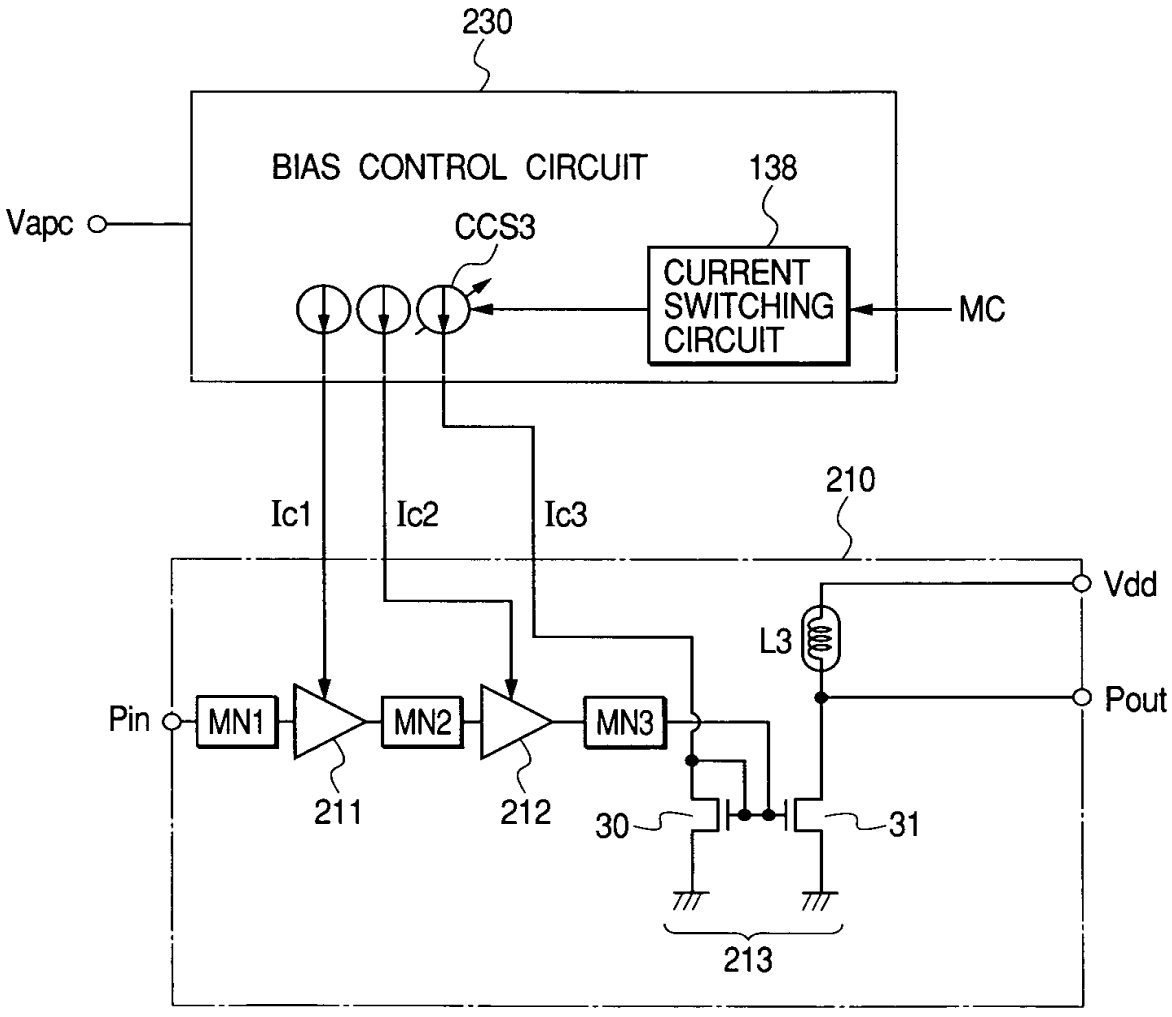

230
BIAS CONTROL CIRCUIT
138
Vapc
CCS3
CURRENT SWITCHING CIRCUIT
MC
Ic1
Ic2
Ic3
210
Vdd
L3
Pout
Pin
MN1
MN2
MN3
211
212
30
31
213

FIG. 12(a)

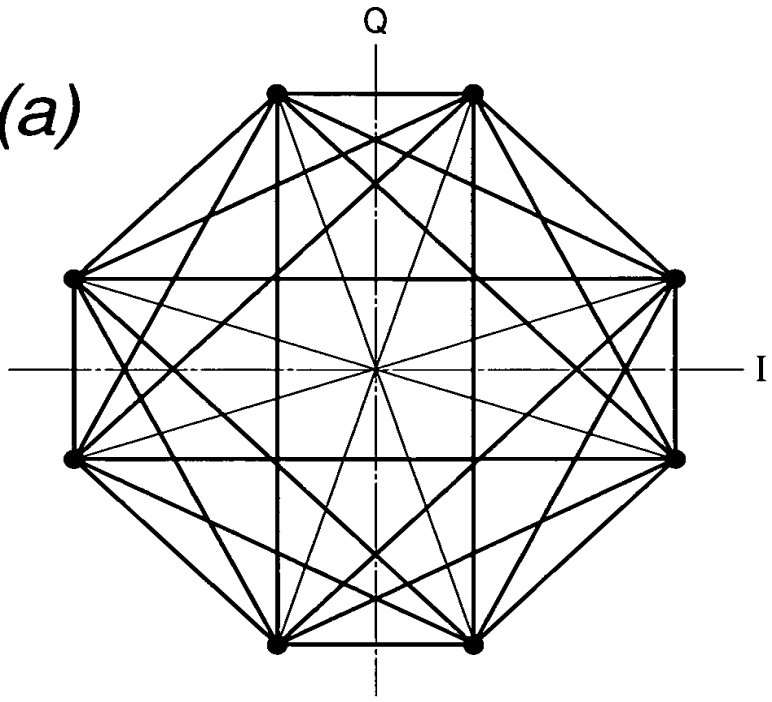


FIG. 12(b)

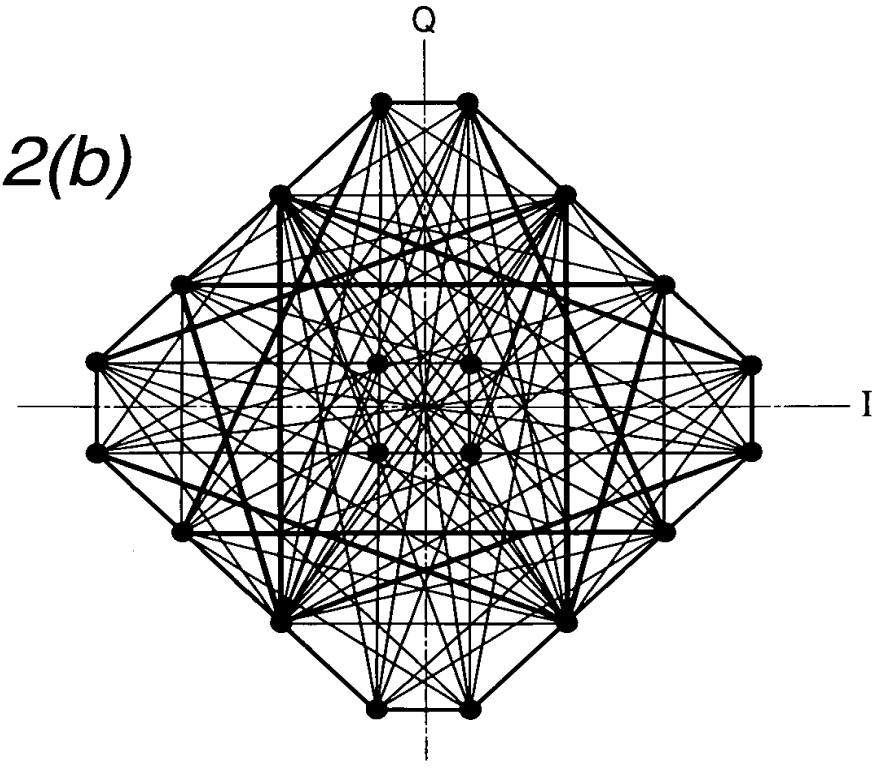


FIG. 13(a)

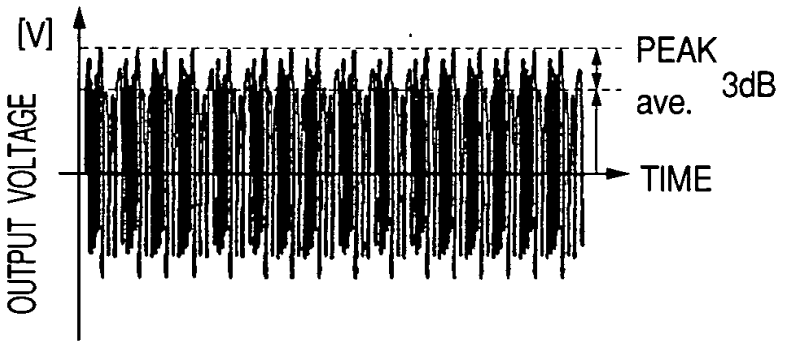


FIG. 13(b)

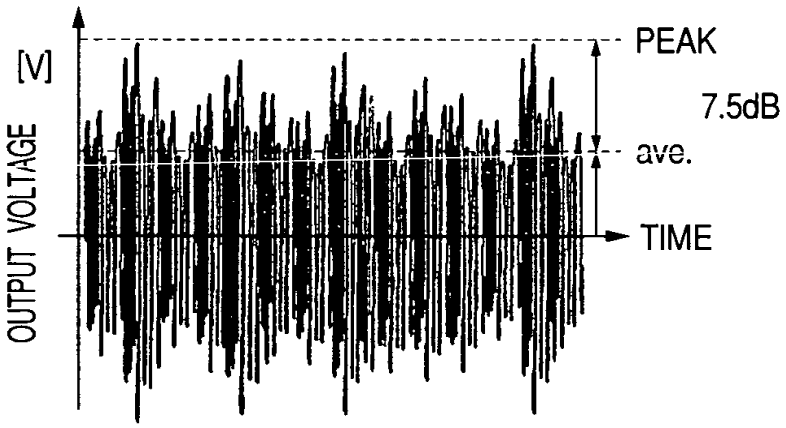


FIG. 14

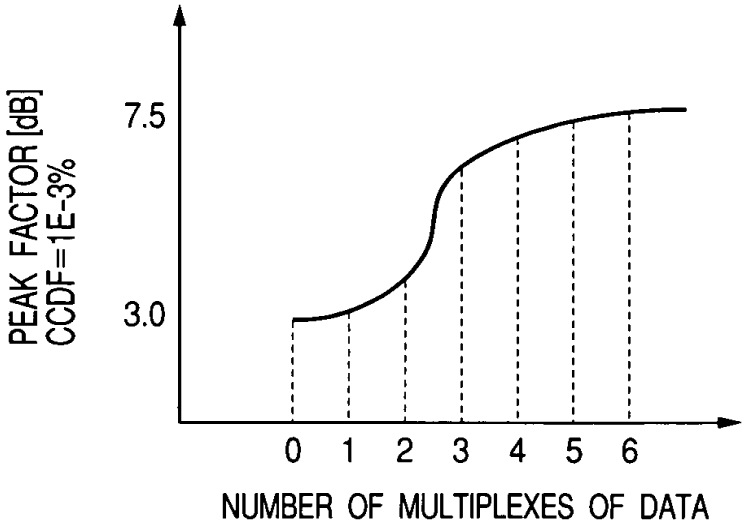


FIG. 15

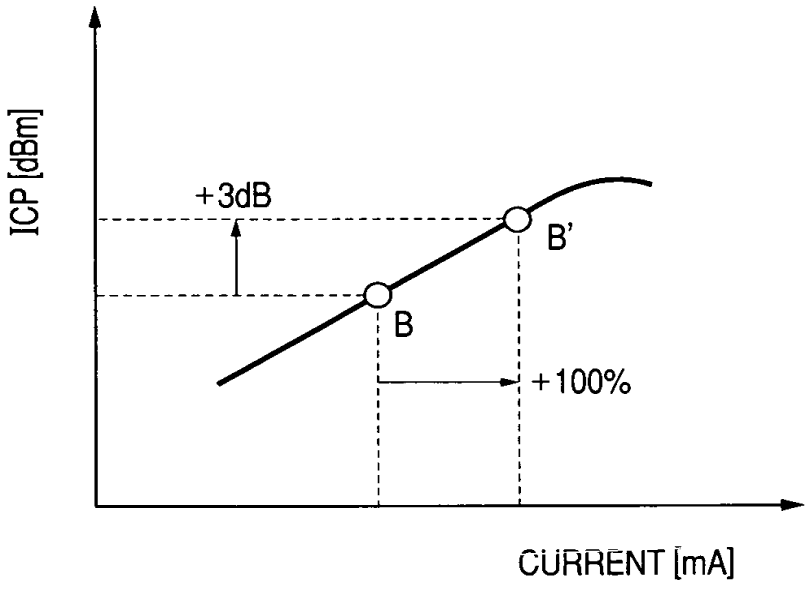
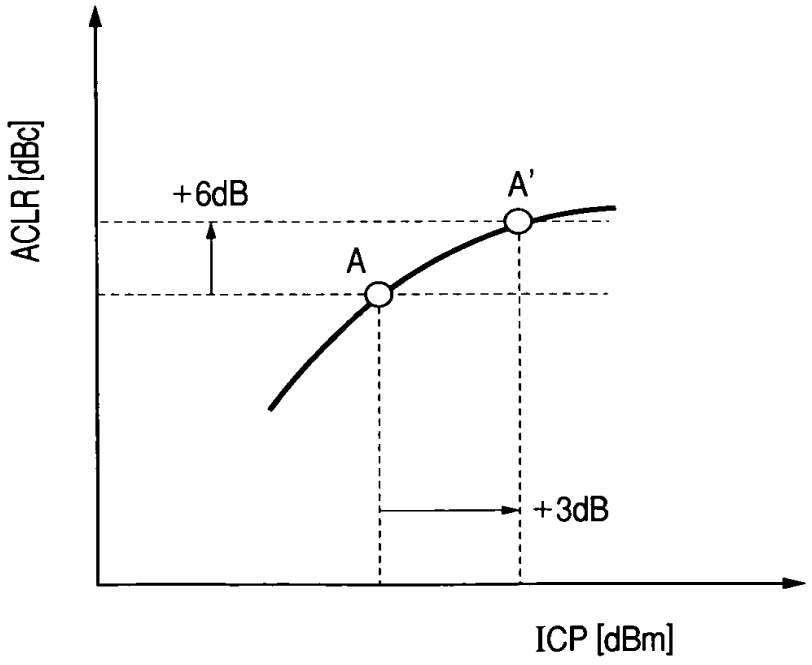



FIG. 16